

Application No.:09/935,156
Amendment dated: October 7, 2003
Reply to Office Action of May 7, 2003

This listing of claims will replace all prior versions and listings of claims in this application:

b.) Listing of Claims

1. (previously amended) An optical component adapted for attachment to an optical bench, the optical component comprising:
 - an alignment feature for positioning the optical component relative to the optical bench, wherein the alignment feature extends into the optical component from an exterior wall, the alignment feature comprising a reentrant sidewall; and
 - a coating over the optical component that is used to attach the optical component to the optical bench, the coating being plated on the optical component.
2. (original) An optical component as claimed in claim 1, wherein the alignment feature is formed in a bottom face of the optical component.
3. (original) An optical component as claimed in claim 1, wherein a proximal origin of the reentrant sidewall is depressed relative to the exterior wall surrounding the alignment feature.
4. (original) An optical component as claimed in claim 3, wherein the outer exterior wall is bonded to the optical bench.
5. (original) An optical component as claimed in claim 1, wherein the exterior wall surrounding the alignment feature is bonded to the optical bench.
6. (original) An optical component as claimed in claim 1, wherein the exterior wall is depressed relative a surface that is bonded to the optical bench.
7. (original) An optical component as claimed in claim 1, wherein the alignment feature comprises a slot that extends along a length of the optical component.

Application No.:09/935,156
Amendment dated: October 7, 2003
Reply to Office Action of May 7, 2003

8. (original) An optical component as claimed in claim 1, wherein the alignment feature comprises a slot that extends along an entire length of the optical component.
9. (previously cancelled)
10. (original) An optical component as claimed in claim 9, wherein the coating is between 0.5 and 10 micrometers thick.
11. (original) An optical component as claimed in claim 9, wherein the coating is about 3 micrometers thick.
12. (previously cancelled)
13. (previously cancelled)
14. (original) An optical component as claimed in claim 1, further comprising a gold plated layer on the optical component over the alignment feature.
15. (original) An optical component as claimed in claim 1, further comprising multiple alignment features spaced from each other along a width of the optical component.
16. (original) An optical component as claimed in claim 15, further comprising at least two of
the alignment features having different widths with respect to each other.
17. (original) An optical component as claimed in claim 1, wherein a waist of the alignment feature is between 10 and 100 micrometers wide.
18. (original) An optical component as claimed in claim 1, wherein a waist of the alignment feature is between 10 and 50 micrometers wide.
19. (original) An optical component as claimed in claim 1, wherein a waist of the alignment feature is about 25 micrometers wide.

Application No.:09/935,156
Amendment dated: October 7, 2003
Reply to Office Action of May 7, 2003

20. (original) An optical component as claimed in claim 1, wherein a waist of the alignment feature is about 50 micrometers wide.
21. (original) An optical component as claimed in claim 1, further comprising a gold alloy coating on the optical component over the alignment feature for attaching the optical component to the optical bench.
22. (previously amended) An optical component adapted for precision attachment to an optical bench, the optical component comprising:
 - an alignment feature for positioning the optical component relative to the optical bench, wherein the alignment feature extends into the optical component from an exterior wall, the alignment feature comprising two opposed reentrant sidewalls; and
 - a coating over the optical component that is used to attach the optical component to the optical bench, the coating being plated on the optical component.
23. (original) An optical component as claimed in claim 22, wherein the alignment feature has a frusto-triangular profile.
24. (original) An optical component as claimed in claim 23, wherein a waist of the alignment feature is between 10 and 100 micrometers wide.
25. (original) An optical component as claimed in claim 23, wherein a waist of the alignment feature is between 10 and 50 micrometers wide.
26. (original) An optical component as claimed in claim 22, wherein the alignment feature has an hourglass profile.
27. (original) An optical component as claimed in claim 26, wherein a waist of the alignment feature is between 10 and 100 micrometers wide.
28. (original) An optical component as claimed in claim 26, wherein a waist of the alignment feature is between 10 and 50 micrometers wide.

Application No.:09/935,156
Amendment dated: October 7, 2003
Reply to Office Action of May 7, 2003

29. (cancelled)

30. (cancelled)

31. (cancelled)